

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
26 May 2005 (26.05.2005)

PCT

(10) International Publication Number
WO 2005/047863 A3

(51) International Patent Classification⁷: C12M 1/34, C12N 11/12, C12Q 1/02, G01N 21/00, 27/00

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

(21) International Application Number:
PCT/US2004/037656

(22) International Filing Date:
10 November 2004 (10.11.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/518,706 10 November 2003 (10.11.2003) US

(71) Applicant (for all designated States except US): PLATYPUS TECHNOLOGIES, LLC [US/US]; 505 South Rosa Road, Madison, WI 53719 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MURPHY, Christopher [US/US]; 1509 Wood Lane, Madison, WI 53705 (US). ISRAEL, Barbara [US/US]; 503 Viking Road, Mt. Horeb, WI 53572 (US). ABBOTT, Nicholas [US/US]; 2120 Jefferson Street, Madison, WI 53711 (US).

(74) Agents: JONES, J., Mitchell et al; Medlen & Carroll, LLP, 101 Howard Street, Suite 350, San Francisco, CA 94105 (US).

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
9 February 2006

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.



A3

WO 2005/047863

(54) Title: SUBSTRATES, DEVICES, AND METHODS FOR CELLULAR ASSAYS

(57) Abstract: The present invention relates to the field of molecular diagnostics, and in particular to diagnostics based on a liquid crystal assay format. In particular, the present invention provided improved substrates and methods of using liquid crystal assays for quantitating the amount of an analyte in a sample. The present invention also provides materials and methods for detecting non-specific binding of an analyte to a substrate by using a liquid crystal assay format.